

LOCATION OF PHOSPHATE MINING ACTIVITIES POLK COUNTY, FLORIDA

Develop GIS Data Layer for Phosphate Mining Activities In Polk County Florida

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USAED – Savannah District Spatial Engineering Section PO Box 889 100 W Oglethorpe Ave Savannah, GA 31402-0889



1.0 PURPOSE

In response to a request for proposal by HTRW Section, Geotechincal Branch, this document defines specific tasks that individually, or in combination, will develop data themes associated with present and past mining activities in Polk County Florida. These data layers will overlay existing GIS data obtained from the Polk County Property Appraisers GIS which includes parcel information as well as Aerial Photographs of a portion of the county.

- **2.0 TASK DEFINITION**: The US Army Corps of Engineers (USACE), Savannah District will perform the following services. These tasks will be completed using ESRI GIS software and the final product will delivered on CD as ArcInfo coverages or ArcView shape files.
 - 2.1 <u>Assemble, Mosaic and Reproject USGS quad sheets for Polk County, Fl.</u> Digital 7.5 minute quad sheets for Polk County will combined into a seamless image for the extent of the county. This image will then be reprojected to match the coordinate system of the existing GIS data for the county, Florida state plane, west zone, North American datum of 1983 (NAD 83).
 - 2.2 Scan and Digitize Existing Map Data. Maps contained in the Phosphate Land Reclamation Study Commission Report on Phosphate Mining and Reclamation dated 1978 will be scanned, registered and digitized to generate specific data layers. These layers will include reclamation areas and land state as of the report (mined out areas left as is, settling areas, reclaimed lands other than settling areas, reclaimed settling areas, disturbed lands other then settling areas), Ownership of pre July 1975 disturbed phosphate lands (phosphate, non-phosphate or private, government), Landform types for pre-July 1975 disturbed phosphate lands (clay settling, mined out, hydraulic mining, sand tailings, other),
 - 2.3 <u>Download and Assemble Aerial Photos and Parcel Data.</u> Existing GIS data is available from the Polk County Property Appraisers FTP site. This data will downloaded and assembled for use in analyzing various mining activities related to current land use and ownership.
 - 2.4 Generate Map Products Showing the Results of Data Comparison. Hard copy color maps will be generated as needed to show the results of analysis and data overlays. It is estimated that not more than 12 unique maps will be required for final reporting.
 - 2.5 Report, Product Delivery and Installation. The project deliverable will be electronic maps assembled as layers in a GIS and written to CD ROM. A brief report detailing the methodology, data quality, data scale, and data sources will included. This report will serve as the meta data for this GIS effort. All GIS data will be compiled and presented as ArcInfo coverages or ArcView shape files with attribution obtained from original hard copy maps and reports. The Savannah Districts Spatial Data Retrieval System will be included to assist in assembling the data layer into an

appropriate GIS project. All data will provided to HTRW Section, Geotechincal Branch for distribution as necessary.

3.0 SCHEDULE:

The project will be complete and submitted to EPA by 31 May 2002.

4.0 COSTS:

The total estimated cost to complete the subject tasks is \$51,140.00. This includes all direct labor, project supervision, materials and travel required for project execution and delivery. A cost summary is provided below.

| Task | Cost - Area "D" |
|-----------------------------|-----------------|
| Assemble USGS Quad Sheets | |
| Digitize Existing Map Data | |
| Assemble Existing GIS Data | _ |
| Generate Map Products | · |
| Report and Product Delivery | |
| Travel and Misc Expenses | - |
| Total | \$51,140 |